Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – IV • EXAMINATION – WINTER • 2015

Subject Code: 240003 Date: 07-01-2016

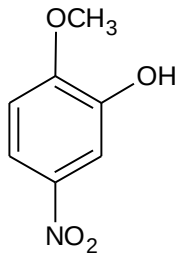
Subject Name: Pharmaceutical Chemistry - IV

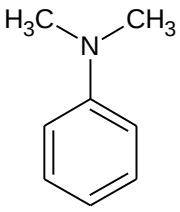
Time: 02:30 pm - 05:30 pm Total Marks: 80

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	(a)	Define Conformation .Discuss Potential energy Profile of all conformation for n-butane.	**06**
	(b)	Draw the Fisher projection of all possible stereoisomer for 2,3-butanediol.	**05**
	(c)	Give a brief account on Stereochemistry of Biphenyl and Spiran.	**05**
Q.2	(a)	What is aromaticity? Discuss nitration of Benzene with mechanism.	**06**
	(b)	Write a note on Haworth synthesis of Naphthalene.	**05**
	(c)	Explain following Statement: i) Chloroacetic acid is stronger than Acetic acid. ii) Aniline does not undergo Friedel craft alkylation. iii) Benzene undergoes electrphilic substitution reaction. iv) O-nitrophenol has low b.p. than p-nitro phenol. v) Aniline is less basic than N-methyl aniline.	**05**
Q.3	(a)	Give any 3 methods of preparation of following : i) Aldehyde ii) Amine	**06**
	(b)	Write on Gattermann Reaction with mechanism.	**05**
	(c)	Discuss Hell-Volhard-Zelinsky reaction with mechanism.	**05**
Q.4	(a)	Define following : i) Optical activity ii) Chirality iii) Arene iv) Meso compound v) α- hydrogen vi) configuration	**06**
	(b)	Give informative note on mechanism for Diels alder reaction.	**05**
	(c)	Write reactions of phenol.	**05**
Q.5	(a)	Explain details mechanism involved in aldol condensation & Perkin reaction.	**06**
	(b)	Give methods of preparation for carboxylic acid.	**05**
	(c)	Give the IUPAC name of following :	**05**

1) 

2) 

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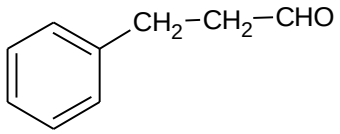

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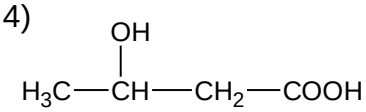

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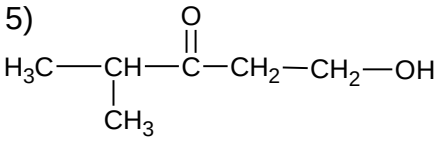

Q. 6	(a)	Describe the principle and applications of microwave synthesis.	**06**
	(b)	Write note on green chemistry.	**05**
	(c)	Explain enantiomer & diastereomer with one common example.	**05**
Q.7	(a)	Briefly discuss Friedel craft reactions with mechanism.	**06**
	(b)	Write chemistry of anthracene.	**05**
	(c)	Discuss mechanism of Reimer-Tiemann reaction.	**05**

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